

APPLICATION NO. 09/871,248
DOCKET NO. P1038/N8788**REMARKS**

Claims 1-5, 7-13 and 28-38 are pending in the application, all of which stand rejected under 35 U.S.C. §103(a) over Mercuri et al. (U.S. 5,902,762), or Mercuri et al. in view of Howard (U.S. 4,961,991).

Because Mercuri et al., even taken in combination with Howard, does not even remotely suggest the invention of the rejected claims, the rejections under 35 U.S.C. §103(a) should be withdrawn.

The claimed invention of the above-captioned application is a "composite flexible graphite sheet" or, alternatively, a "composite of flexible graphite sheets", each of which comprise a plurality of zones of flexible graphite sheet having characteristics which differ from at least one other of the plurality of zones. Significantly, as described in the specification at page 11, lines 23-29, zones, as used in this application, refer to a defined volume, either vertically or horizontally oriented, which is bounded by a void. In the most preferred embodiment, the zones comprise layers of flexible graphite sheets.

Thus, the inventive concept revolves around the inclusion of graphite zones within a single graphite article, some of the graphite zones differing substantially from others in certain characteristics. By production of such an article, a graphite material is produced which has functional attributes not obtainable by other means. More particularly, the inclusion of differing graphite zones in a single graphitic article permits the production of a graphite material which is uniquely capable of being embossed so as to produce, e.g., a fuel cell component, yet which has resistivities and

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other electrical or thermal properties not otherwise obtainable in the same article.

Nothing in the cited prior art discloses such a material.

The Mercuri et al. reference relates to a flexible graphite sheet having ceramic fibers dispersed therethrough. Nothing in Mercuri et al. discloses [differing zones of flexible graphite material within the same sheet or article] nor is there any even remote or oblique suggestion of such a material. Nothing cited in Howard changes this conclusion. Howard teaches a laminate of a polymer resin coated cloth between two flexible graphite sheets. However, nothing in Howard suggests that characteristics of the flexible graphite sheets can or [should vary either within the sheets or between the layers of sheets]. Thus, nothing in either cited reference suggests the central principle of the claimed invention of the above-captioned application.

In addition, the declaration of Dr. Jeremy Klug submitted with the Response filed on 3 February, 2003, illustrates the unique effects of the inventive material. More particularly, Dr. Klug experimentally verified that providing a composite of flexible graphite sheets having differing characteristics provides attributes such as [resistivity not seen when a composite without differing zones is produced]. The Official Action declines to credit Dr. Klug's experimental results by merely saying the experimentation was not done in a manner as to show an improvement over the prior art cited in the case, without providing any basis or explanation for this conclusory and unsupportable statement.

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Quite simply, Dr. Klug made a clear and cogent demonstration of the unexpected results obtained by the practice of the present invention and his results must be given their proper weight.

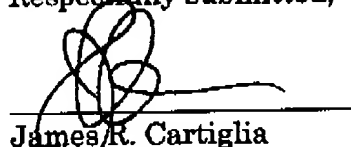
Since nothing in the cited art discloses or even remotely suggests the invention of the rejected claims, and since the previously submitted declaration clearly shows unexpected results arising from practice of the present invention, withdrawal of the rejections under 35 U.S.C. §103(a) is appropriate and is requested.

CONCLUSION

Based on the foregoing amendments and remarks, it is believed the above-captioned application is in condition for allowance. Such action is earnestly sought. If there remains any matter which prevents the allowance of any of pending claims 1-5, 7-13 and 28-38, the Examiner is requested to call the undersigned, collect, at 615-242-2400 to arrange for an interview which may further expedite prosecution.

The Commissioner is authorized to charge any deficiency or credit any overpayment associated with the filing of this Response to Deposit Account 50-1202.

Respectfully submitted,



James R. Cartiglia
Registration No. 30,738
WADDEY & PATTERSON
A Professional Corporation
Customer No. 23456

ATTORNEY FOR APPLICANTS

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Waddey & Patterson
414 Union Street, Suite 2020
Bank of America Plaza
Nashville, TN 37219
(615) 242-2400